

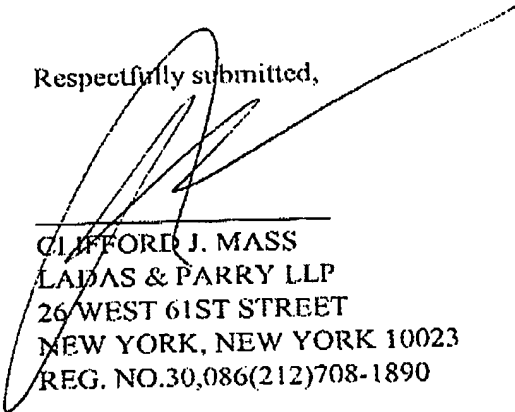
REMARKS

The above amendatory action is taken to place the application into better form without adding any new matter and without narrowing the scope of the claims. The recitations in the amended claims correspond with the recitations in the claims as filed and are the same as the recitations filed in Applicants' Amendment dated 10 June 2002 in grandparent application 09/820,188.

In accordance with the Examiner's request in a telephone discussion with the undersigned on 29 June 2006, Applicants also submit herewith a copy of the original claims on file because the copy originally sent to the USPTO are apparently unclear.

An early and favorable reconsideration of the application as amended is again respectfully requested.

Respectfully submitted,

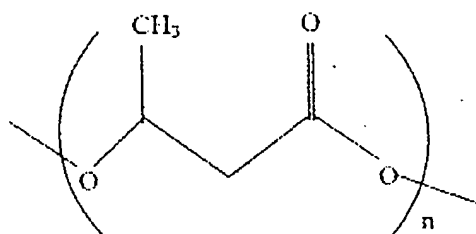


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## We claim

1. A process for the isolation of polyhydroxybutyrate of the formula 1



formula 1

- said process comprising growing a culture of *Bacillus mycoides* RLJ B-017 in a growth medium and a carbon source selected from sucrose, molasses and pineapple waste for a time period of equal to or greater than twenty four hours, said bacterial host producing intra-cellular polyhydroxybutyrate of the structure 1, lysing said bacterial host in said culture to release said polyhydroxybutyrate of the structure 1, and separating the isolate of said polyhydroxybutyrate of the structure 1.
2. A process as claimed in claim 1 wherein said growth medium comprises (g l<sup>-1</sup>): sucrose, 20; nutrient broth, 8; KH<sub>2</sub>PO<sub>4</sub>, 1.5; (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, 2.0; Na<sub>2</sub>HPO<sub>4</sub>·12H<sub>2</sub>O, 2.239; MgSO<sub>4</sub>·7H<sub>2</sub>O, 0.2; CaCl<sub>2</sub>·2H<sub>2</sub>O, 0.02; FeSO<sub>4</sub>·7H<sub>2</sub>O, 0.01; and trace-element solution 1 ml l<sup>-1</sup> said trace element solution comprising (g l<sup>-1</sup>): ZnSO<sub>4</sub>·7H<sub>2</sub>O, 0.2; H<sub>3</sub>BO<sub>3</sub>, 0.6; MnCl<sub>2</sub>·4H<sub>2</sub>O, 0.06; CoCl<sub>2</sub>·6H<sub>2</sub>O, 0.4; CuSO<sub>4</sub>·4H<sub>2</sub>O, 0.02; NaMoO<sub>4</sub>·2H<sub>2</sub>O, 0.06, with pH 7.2.
3. A process as claimed in claim 1 wherein said growth medium comprises (g l<sup>-1</sup>): molasses, 20; nutrient broth, 8; KH<sub>2</sub>PO<sub>4</sub>, 1.5; (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, 2.0; Na<sub>2</sub>HPO<sub>4</sub>·12H<sub>2</sub>O, 2.239; MgSO<sub>4</sub>·7H<sub>2</sub>O, 0.2; CaCl<sub>2</sub>·2H<sub>2</sub>O, 0.02; FeSO<sub>4</sub>·7H<sub>2</sub>O, 0.01; and trace-element solution 1 ml l<sup>-1</sup> said trace element solution comprising (g l<sup>-1</sup>): ZnSO<sub>4</sub>·7H<sub>2</sub>O, 0.2; H<sub>3</sub>BO<sub>3</sub>, 0.6; MnCl<sub>2</sub>·4H<sub>2</sub>O, 0.06; CoCl<sub>2</sub>·6H<sub>2</sub>O, 0.4; CuSO<sub>4</sub>·4H<sub>2</sub>O, 0.02; NaMoO<sub>4</sub>·2H<sub>2</sub>O, 0.06, with pH 7.2.
4. A process as claimed in claim 1 wherein said growth medium comprises (g l<sup>-1</sup>): pineapple waste, 20; nutrient broth, 8; KH<sub>2</sub>PO<sub>4</sub>, 1.5; (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, 2.0; Na<sub>2</sub>HPO<sub>4</sub>·12H<sub>2</sub>O, 2.239; MgSO<sub>4</sub>·7H<sub>2</sub>O, 0.2; CaCl<sub>2</sub>·2H<sub>2</sub>O, 0.02; FeSO<sub>4</sub>·7H<sub>2</sub>O, 0.01; and trace-element solution 1 ml l<sup>-1</sup> said trace element solution comprising (g l<sup>-1</sup>): ZnSO<sub>4</sub>·7H<sub>2</sub>O, 0.2; H<sub>3</sub>BO<sub>3</sub>, 0.6; MnCl<sub>2</sub>·4H<sub>2</sub>O, 0.06; CoCl<sub>2</sub>·6H<sub>2</sub>O, 0.4; CuSO<sub>4</sub>·4H<sub>2</sub>O, 0.02; NaMoO<sub>4</sub>·2H<sub>2</sub>O, 0.06, with pH 7.2.
5. A process as claimed in any preceding claim wherein the polyhydroxybutyrate of formula 1 is separated from the culture of said organism and pelleted, the cell pellet

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thus obtained being treated with a ionic reagent comprising a dispersion of a metal hypochlorite in a halogenated hydrocarbon solvent, to agglomerate said poly-beta-hydroxybutyrate of the structure 1.

6. A process as claimed in claim 5 wherein the metal hypochlorite is selected from sodium hypochlorite and calcium hypochlorite.
7. A process as claimed in claim 5 wherein the halogenated hydrocarbon solvent comprises chloroform.
8. A process as claimed in claims 5 to 7 wherein the concentration of said ionic reagent used is in the range of one molar to one millimolar.
9. A process as claimed in any preceding claim wherein the polyhydroxybutyrate of formula 1 is separated from the organism culture by centrifugation to obtain three separate phases, wherein the lower phase containing polyhydroxybutyrate of the structure 1 is dissolved in chloroform and precipitated by adding ethanol.
10. A process as claimed in claim 9 wherein the precipitate is chilled and recovered by further centrifuging to obtain polyhydroxybutyrate of the structure 1.